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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,123	02/18/2004	Mark W. Kroll	A04P1016US01	5391
36802	7590	06/12/2007		
PACESETTER, INC. 15900 VALLEY VIEW COURT SYLMAR, CA 91392-9221			EXAMINER BERTRAM, ERIC D	
			ART UNIT 3766	PAPER NUMBER
			MAIL DATE 06/12/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/782,123

Applicant(s)

KROLL, MARK W.

Examiner

Eric D. Bertram

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 22-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/3/2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-20 and 22-25 have been considered but are moot in view of the new ground(s) of rejection, necessitated by applicant's amendment.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

4. The correct statement should read "I acknowledge the duty to disclose information which is material to patentability of this application in accordance with Title 37, Code of Federal Regulations Section 1.56."

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-20 and 22-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of copending Application No. 10/782,684. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both describe methods and apparatuses for recording diagnostic data in an implantable device based on the detection of predetermined triggers.

7. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-20 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yomtov et al. (US 5,522,850, hereinafter Yomtov) in view of Wilson et al. (US 5,908,392, hereinafter Wilson) and Legal Precedent. Yomtov discloses an implantable medical device and method for storing data related to a cardiac arrhythmia (Col. 3, lines 22-33). Yomtov discloses detecting the occurrence of atrial fibrillation, which then triggers the recording of diagnostic data in a temporary memory 84 (Col. 8, lines 21-38). The atrial fibrillation that is detected is also indicative of impending cardiac arrhythmia, since the fibrillation will continue until it is corrected by a cardioversion shock ((i.e., even though the atrial fibrillation is currently occurring, it is also about to occur in the future as the arrhythmia continues). After further analysis, the data recorded in the temporary memory is transferred and recorded in long-term memory 86 and 88 (Col. 10,

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lines 11-28). However, Yomtov is silent as to adaptively modifying the recording triggers.

11. The secondary reference of Wilson also discloses a system and method for recording and storing medical data in response to a programmable trigger. Wilson describes that triggers may be adaptively modified and set by a medical practitioner in order to ensure that only necessary data is stored, as deemed by the practitioner (Col. 12, lines 50-61 and Col. 4, lines 10-15). Since the triggers are set by the practitioner, they are inherently chosen by evaluating the likelihood of important diagnostic data being associated with the predetermined triggers. While Wilson does not disclose that this is done by a processor, attention is directed to *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (see MPEP 2144.04). It has been held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device and method to automatically modify the recording triggers since Wilson teaches that recording triggers should be adjusted to be unique to a particular patient, since it is notoriously well known in the art that each patient has unique cardiac morphologies (Col. 12, lines 57-59). By properly adjusting the triggers to a particular patient, the likelihood of unnecessary recording of diagnostic data will inherently be reduced.

12. Regarding claims 4-6, Yomtov discloses that ECG signals are processed using a atrial fibrillation detection algorithm, which will inherently utilize some sort of threshold

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testing based on the morphology of the signal to determine if the signals represent an arrhythmia.

13. Regarding claims 7, 8 and 15-20, Yamtov, as modified above, discloses the applicant's basic invention with the exception of specifically disclosing reviewing the data in order to determine if the triggers were correctly set to record important diagnostic data. However, Wilson does disclose that the practitioner reviews the data recorded during follow-up visits in order to appraise the performance of the implantable device (Col. 4, lines 28-41). While it is not stated, one of ordinary skill would assume that if the data recorded was not found to be adequate, then the practitioner would adjust the recording triggers accordingly in order to capture the best data possible in the future. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the method of Wilson by varying the triggers after appraisal of the implantable device in order to record the best and most prevalent data possible in order to provide the best care possible to the patient.

14. Regarding claims 16 and 17, Wilson discloses counting the number of consecutive beats that have arrhythmia and when the occurrence is 1-15 consecutive times initiating recording of the data (Col. 9, lines 30-45).

15. Regarding claims 9 and 10, if atrial fibrillation is detected, there is a 100% probability that the atrial fibrillation will continue, and as such the period of time following detection has an elevated risk of arrhythmia.

16. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yomtov in view of Wilson and Legal Precedent and further in view of Official Notice. Wilson, as

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described above, discloses the applicant's basic invention with the exception of using heart rate variability changes as an indication of arrhythmia. However, the Examiner takes Official Notice that changes in heart rate variability is notoriously well known to those skilled in the art as a strong indicator of cardiac arrhythmia, specifically T-wave alternans. Therefore, it would have been obvious to one of ordinary skill in the art to modify the method of Wilson to incorporate heart rate variability (HRV) as a trigger since it is well known in the art that HRV is an indicator of cardiac arrhythmia.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric D. Bertram whose telephone number is 571-272-3446. The examiner can normally be reached on Monday-Thursday from 8:30-7 EST.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Layno can be reached on 571-272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eric D. Bertram
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